



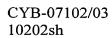
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- 1. A distributed network computing environment, comprising:
- a plurality of clients communicating within a multicast cloud using a stream-specific behavior to implement a groupware application; and
- one or more network routing modules or router embedded applets operative to support the stream-specific behavior in addition to normal packet-routing.
- 2. The environment of claim 1, wherein the application is a distributed simulation or game.
- The environment of claim 1, wherein the application is a client selectable and
 controllable data service associated with the distribution of audio, video, or other digital signal stream.
- 4. The environment of claim 1, wherein the clients enter, leave, and interact with the cloud through a lobby manager.
- 5. The environment of claim 4, wherein the lobby manager is further operative to validate the application in terms of compatibility and download data to correct for deficiencies.
- 6. The environment of claim 4, wherein the lobby manager is further operative to simultaneous support multiple clouds through multicast or replicated unicast protocols.

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- 7. The environment of claim 1, wherein the routing modules implement application-specific message culling to reduce client-cloud communications.
- 8. The environment of claim 7, wherein the message culling includes message omission, rerouting, and other quality-of-service modifications.
- 9. The environment of claim 7, wherein the application communicates internal state changes into the cloud through an API.
- 10. The environment of claim 1, wherein the application is a massive groupware application involving thousands of world-wide participants.
 - 11. A distributed network computing environment, comprising:
- a network-enabled client application;
- at least one lobby manager that facilitates communications between the client

 application and a federation; and
- one or more network routing modules or router embedded applets that implement application-specific message culling to reduce the communications with the federation.
- 12. The environment of claim 11, wherein the application is a distributed simulation.



- 13. The environment of claim 11, wherein the application is a game.
- 14. The environment of claim 11, wherein the application is a client selectable and controllable data service.
- 15. The environment of claim 14, wherein the data service includes audio, video, or other type of digital signal feed.
- 16. The environment of claim 11, wherein the routing modules further support a point-to-multipoint distributed communications model between clients.
 - 17. The environment of claim 11, wherein:
- at least some of the client applications run on host platforms; and
 the routing modules further support conventional internet packet routing among the
 hosts.
- 18. The environment of claim 11, wherein the routing modules further support one or more conventional multicast protocols.
- 19. The environment of claim 11, wherein the application communicates internal state changes into the federation through an API.

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- 20. The environment of claim 11, wherein the message culling includes message omission, rerouting, and other quality-of-service modifications.
- 21. The environment of claim 11, wherein the lobby manager is further operative to validate the client application for compatibility with the federation and download data to correct for deficiencies.
- 22. The environment of claim 11, wherein the lobby manager is further operative to simultaneous process multiple federations.
- 23. The environment of claim 22, wherein the federations communicate through multicast or replicated unicast protocols.